



## **SUBMITTING YOUR PET'S URINE SAMPLE TO AIRPARK ANIMAL HOSPITAL**

A first morning urine sample is often the ideal sample for dogs because it is most likely to be concentrated. The kidneys are stimulated to draw the water out of the urine it produces if the pet is drinking less water. This occurs at night for most pets because they are sleeping. Identifying the kidney's concentration ability is critical to evaluating its overall function. However, water is to never be restricted at any time, day or night, in a pet's life. Doing so without close monitoring by a veterinarian can damage the kidneys.

Additionally, it is important that the urine sample is fresh. The time a urine sample sits between when it is voided and when it is analyzed can drastically change the accuracy of the results. This is especially true when evaluating for the presence of crystals. Keeping the sample refrigerated or chilled (36° - 45° F) will help slow the deterioration.

Please bring the urine in within an hour of collection. If you are unable to do so, it is critical that the sample be refrigerated or kept cool. We are reluctant to accept urine from a dog that is over 6 hours old (2 hours old if not refrigerated). If the urinalysis results are normal they are likely accurate but with some abnormalities we would want to do another test on a fresh sample – costing you more time and money.

Cats are more difficult to get a sample from. The test has the same limitations on older urine but getting a sample (up to 24 hours old if refrigerated) is better than no sample. Based on results we may need to hospitalize your cat or devise another method of collection if a fresher sample is needed.

***Please bring us the freshest urine sample you can collect and keep it refrigerated or chilled if you cannot bring it in immediately.*** We are open 7:00 a.m. to 9:00 p.m. Monday through Friday and 8:00 a.m. to 2:00 p.m. on Saturday.

### **WHAT IS A URINALYSIS?**

A urinalysis is a laboratory test of urine commonly referred to by medical professionals as a "UA." The urine is evaluated for the presence of certain chemicals. A microscopic exam of the urine is also done to look for abnormalities.

A urinalysis is indicated for evaluating pets with urinary abnormalities such as increased urine production, increased urinary frequency, straining to urinate, bloody urine or abnormal color to the urine. This test can also be helpful in cases of unexplained fever, loss of appetite or weight loss.

Any evaluation for health or illness should include a urinalysis. Urinalysis results can give an idea of hydration and kidney function; it can also indicate inflammation or infections in the urinary tract.

### **WHAT DOES A URINALYSIS REVEAL?**

A urinalysis helps to evaluate the function of the kidneys and the quality of the urine produced. A urinalysis usually consists of three parts; examining the physical sample, a dipstick analysis to evaluate the presence of

certain substances and microscopic examination of the sediment. A urinalysis can evaluate for pyuria (white blood cells in the urine), hematuria (blood in the urine), crystalluria (crystals in the urine), the presence of abnormal amounts of glucose, ketones and protein, and urine concentration.

Normal urinalysis results include a specific gravity (SG) of 1.020 to 1.070. This measures the ability of the kidneys to concentrate urine. In the normal patient, dipstick results for protein show negative to trace amounts, negative blood, negative glucose, negative ketones, and negative to trace amounts of bilirubin. The results of the sediment testing (microscopic evaluation) is slightly dependent upon the method of urine collection (free catch, catheterization, or cystocentesis). Essentially a few red blood cells and white blood cells can be normal.

In some cases, additional procedures such as radiographs (x-rays), abdominal ultrasound, radiographs with contrast (IVP or cystogram) or even exploratory surgery are needed to diagnose a problem.

#### How Is a Urinalysis Done?

A urinalysis is begun with the collection of a urine sample. Urine can be obtained by three methods:

1. *Catheterization* consists of inserting a flexible plastic tube into the urethra, then up into the bladder (the reservoir inside the body where urine is stored until the pet urinates).
2. *Cystocentesis* is a very common method to obtain urine from dogs and cats. This procedure involves introducing a needle directly into the bladder through the body wall. This is a relatively painless and quick procedure. The pet can be lying or standing. The bladder is palpated (felt) and a needle is inserted into the bladder.
3. *Free catch* urine samples are obtained by catching a sample when the pet urinates. This is easy in some pets and quite difficult in others. Plastic containers, ladles, scoops and various objects can be used. The container should be as clean as possible for the most accurate of results.
  - Walk your dog on a short leash and slide the container into place as your pet urinates.
  - Place your cat in a bathroom or laundry room. Pick up all mats and rugs and place stoppers in all drains. Use a clean litter box that has not litter and no dust in it. Place ~ ¼ cup of plastic beads in the box. This will allow your cat to have something to move around but will not absorb the urine. Lock your cat into this room with food and water for several hours. Check periodically to see if your cat has urinated yet. As soon as you see your cat has urinated, draw up the sample with the dropper and place it into the container.